User manual

Fjordblink Birth Pool and Water Supply Unit

Content

Intended use 3
Symbols used in this manual 4
Safety 5
Product labels 6
Main features 7
    Water Supply Unit 8
    Easy Touch Panel 9
Prior to use 10
    Moving the Birth Pool 10
    Placing the Birth Pool 10
    Support feet adjustment 11
    Calibrating of the lifting/lowering system 12
    Outlet hose 13
Filling with water 14
    Overflow sensor 14
The lifting/lowering system 15
Cleaning and disinfection 16
    Disinfection 16
About the overflow sensor 18
In case of power failure 19
        Technical data 21
        Certifications 22
Disposal and recycling 23

Intended use

The Fjordblink® Medical Birth Pool is a physiotherapeutic and medical relaxation pool for water births and can also be used for comfortable reclining and resting.

The Fjordblink® Medical Birth Pool is designed for delivery/maternity wards or units and should be used only by healthy women giving birth naturally.

Models covered in this manual: MILIEU 2014 and COMFORT 2014. The only differences between these two pools are the pool size and the location of their lifting/lowering system.

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This manual is subject to change without further notice.

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Original instructions

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Symbols used in this manual

The following symbols are used in this manual as well as the associated documentation supplied with the product.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT indicates important information about handling and use of the product.

NOTICE is used to address practices not related to personal safety.

Feet crush hazard. Take care to avoid injury to feets when in the vicinity of moving mechanical parts.

Electricity or potentially dangerous voltage.

Safety

⚠ WARNING

- Read and understand the manual completely before use. Keep the manual close to the unit.
- Comply with this manual to avoid accidents involving serious personal injury.
- Never use or handle this product in other ways than are specified in this manual, as this can put your safety at risk and cause damage to the product.
- Make sure that everyone who is to install or use the product and its systems has the necessary information and access to this manual.

⚠ CAUTION

- Please comply with these instructions to avoid the product becoming damaged or destroyed.
- Do not perform repairs, disassembly, or assembly operations, extensions, re-adjustments or modifications to this product. These must be carried out by Fjordblink or persons authorized by Fjordblink only.
- Never use the product if it is defective or damaged. Do not use a defective product before it has been repaired.

NOTICE

- The information in this manual is based on correct fitting and installation of the product in accordance with our Assembly instruction.
- Fjordblink cannot be held liable if the product is used in any way which differs from that described in this guide.
- Fjordblink reserves the right to amend this manual without prior notice.

Product labels

The product labels are placed on the back of the Water Supply Unit and on the lower part of the Birth Pool.

CE

This product is CE-marked in accordance with the European Medical Device Directive 93/42/EEC, including amendments incorporated in Directive 2007/47/EEC. It also complies with all relevant requirements in the Council Directive 2006/42/EC (of 17 May 2006) on machinery and with Council Directive 2011/65/EC (of 8 June 2011) on RoHS. A declaration of conformity can be found at www.fjordblink.com.

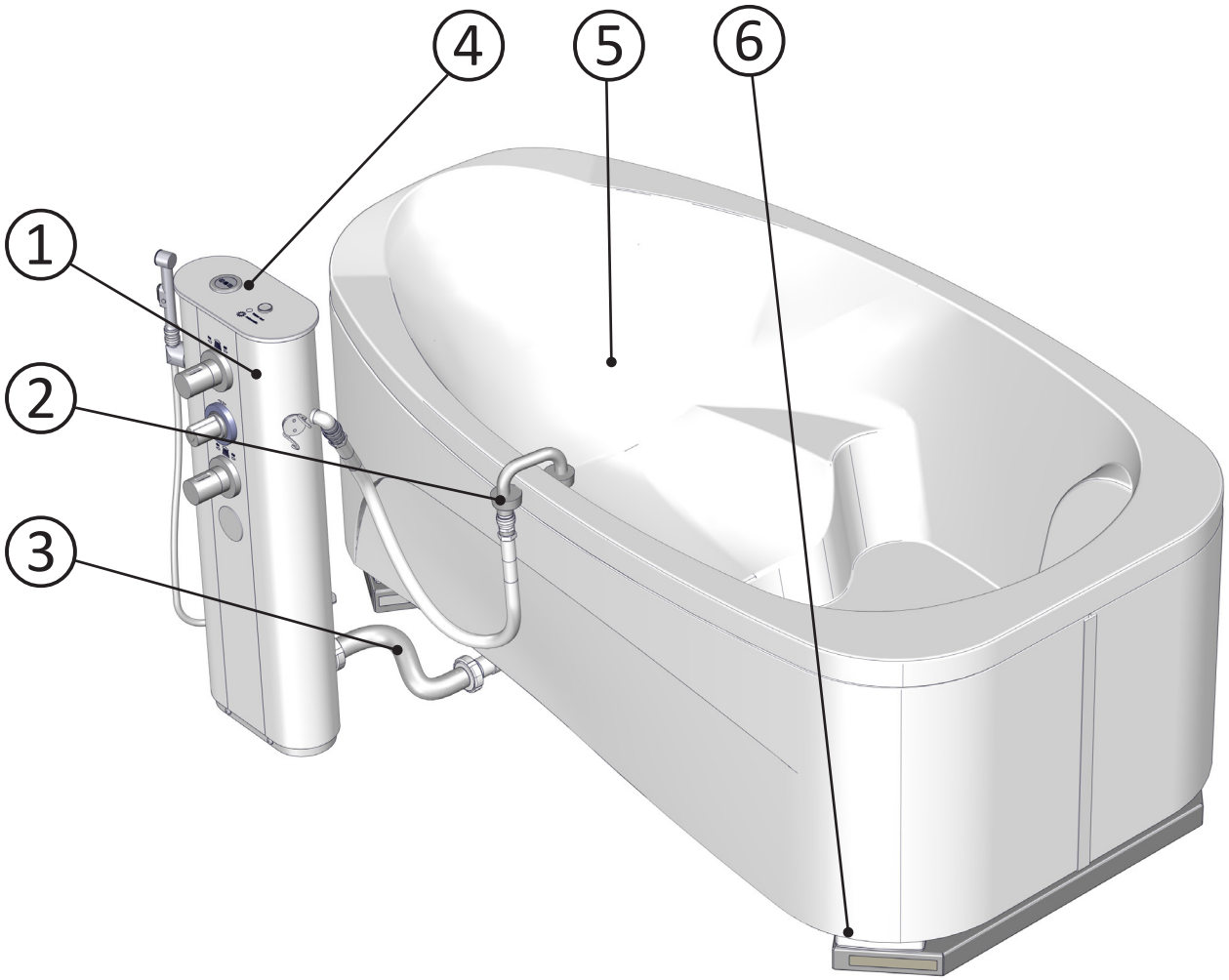
Additional information

The unit's unique serial number
The unit's name
Information about power supply and fuses

Manufacturing date

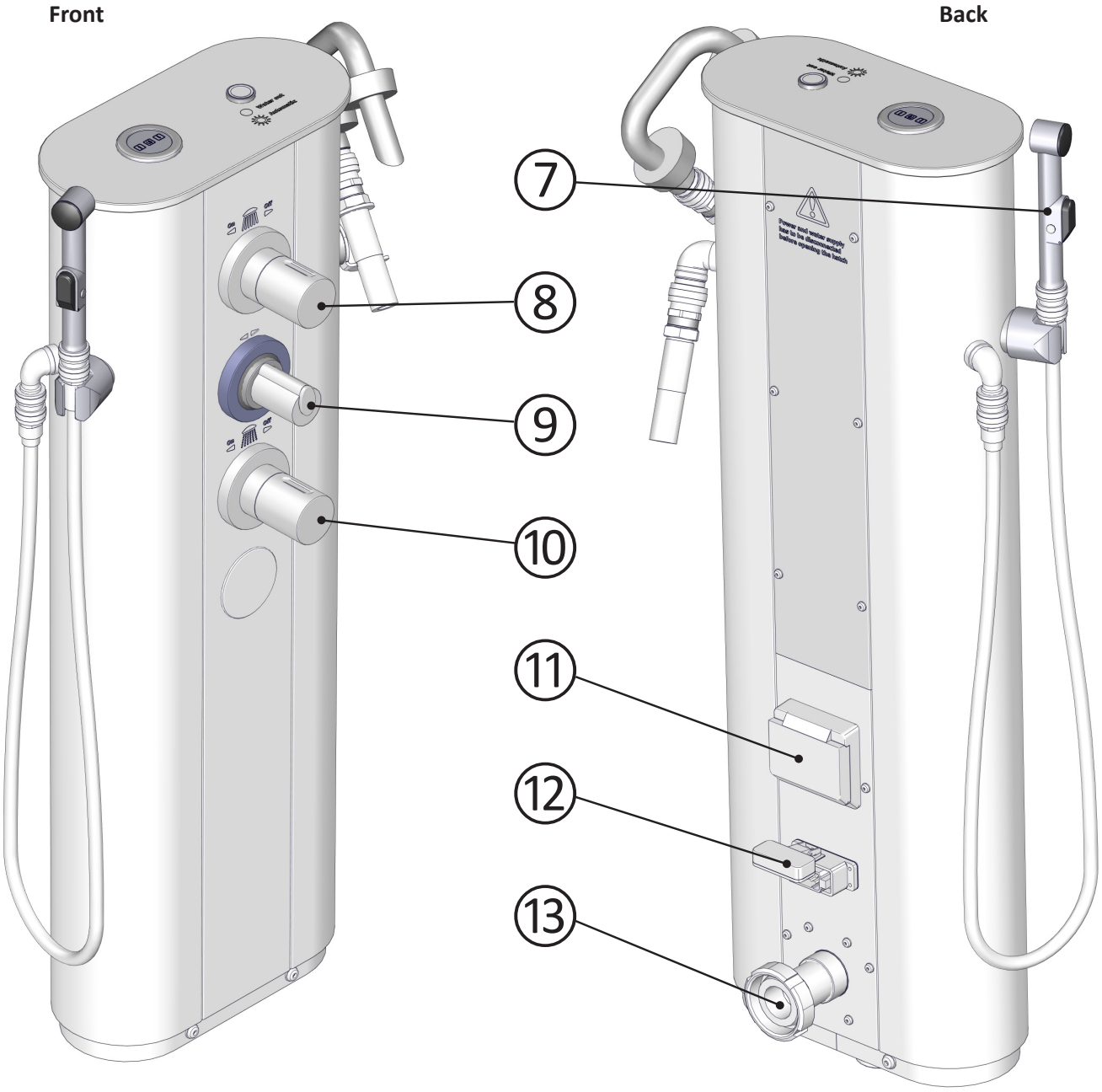
Manufacturer's name and address.

Main features



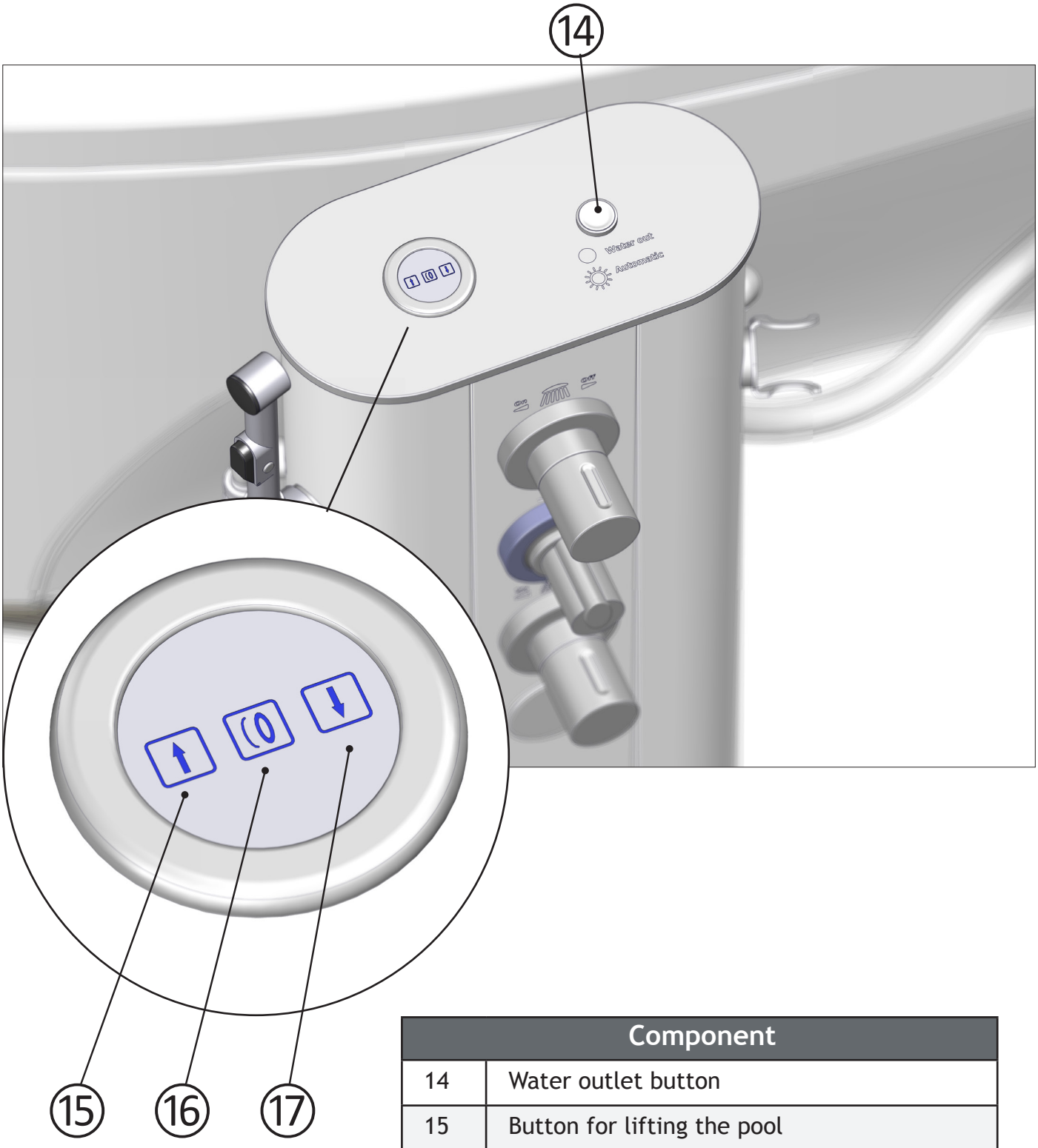
Component	
1	Water Supply Unit
2	Quick filler
3	Water outlet
4	Easy Touch Panel
5	Birth Pool
6	Support with adjustable feets

Water Supply Unit



Component	
7	Hand shower head
8	Water filler tap
9	Water temperature mixing tap
10	Hand shower tap
11	Power supply for lifting/lowering system
12	Power supply for drain system valve and overflow sensors
13	Drain system valve

Easy Touch Panel



Component	
14	Water outlet button
15	Button for lifting the pool
16	Button for lowering the wheels
17	Button for lowering the pool

Prior to use

Check that the outlet is closed before filling water into the pool. This is indicated by light in the water outlet button ① on the operating panel on the supply unit.

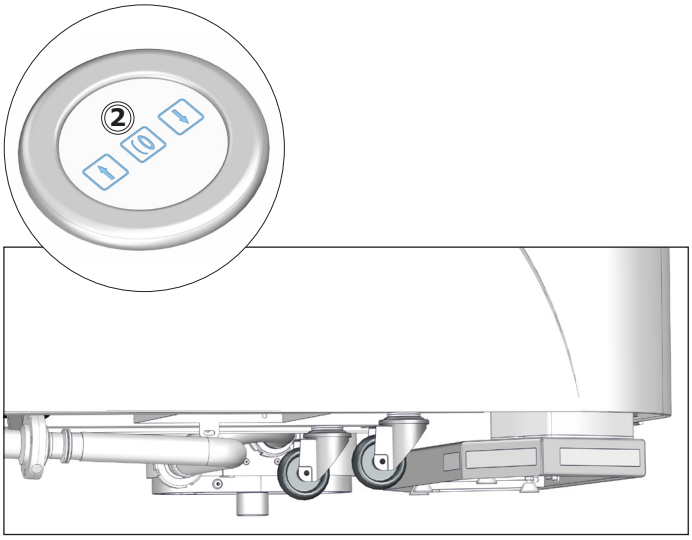
Check that the pool is level before activating the lifting/lowering system and before filling the pool with water.

Do not move the pool without using the wheels or by means of other lifting tool.

Moving the Birth Pool

The pool is equipped with wheels that can be activated by pressing the Wheel button ② on the Easy Touch panel when the pool is at its lowest position. When the wheels are down, the pool can be moved.

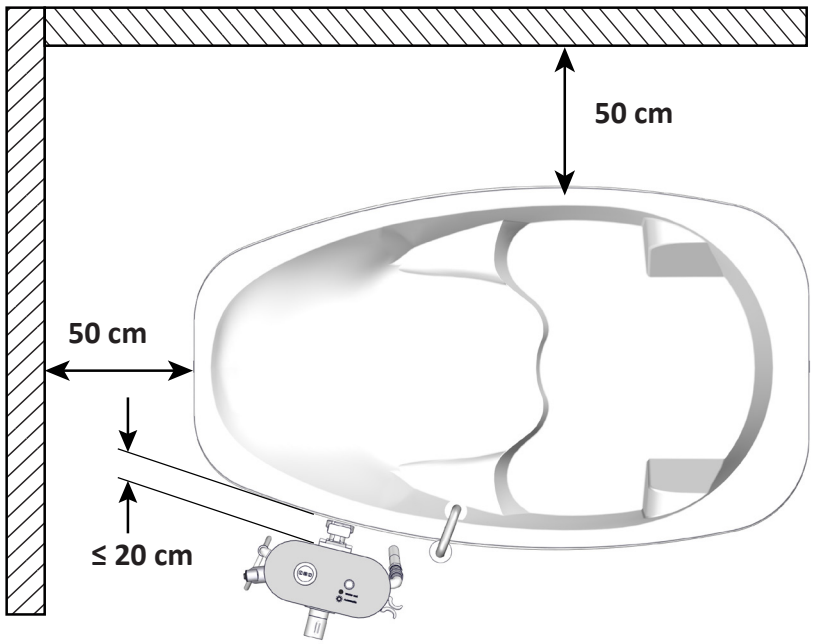
The wheels will lift automatically when you raise the pool, so that it cannot be moved.



Placing the Birth Pool

The Birth Pool should be placed on a stable level surface, not more than 20 cm away from the Supply Unit.

Allow at least 50 cm free space between the pool and walls.



Support feet adjustment

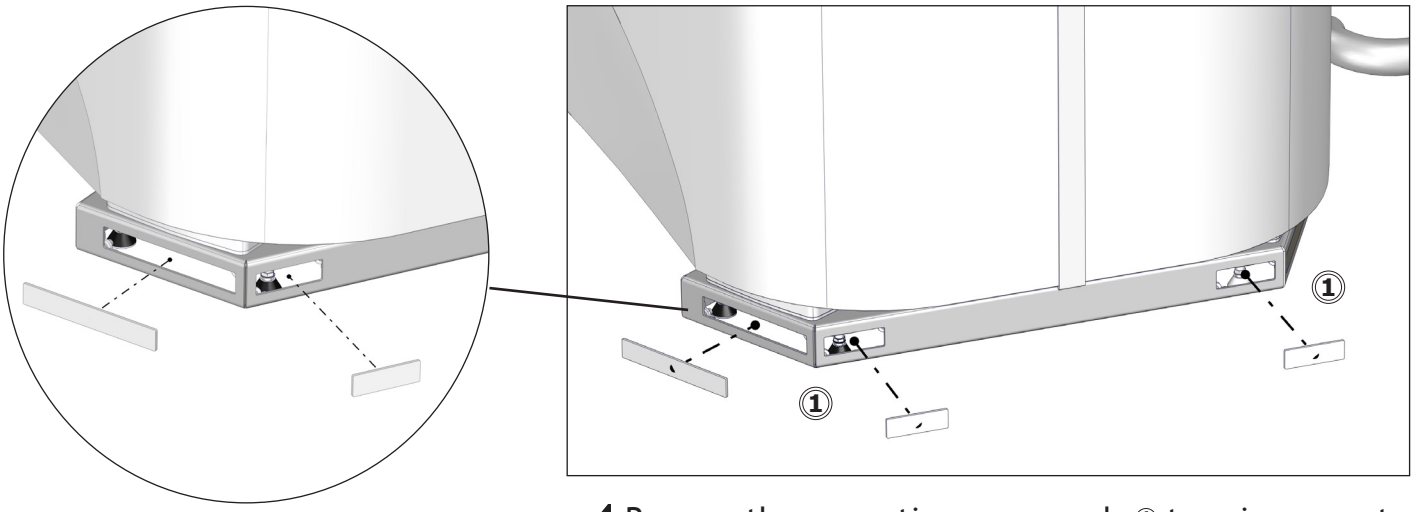
1 Connect the pool to the mains and set it in its lowermost position by pressing the Down button ① on the Easy Touch panel.

2 Press the Wheel button ② to lower the wheels.

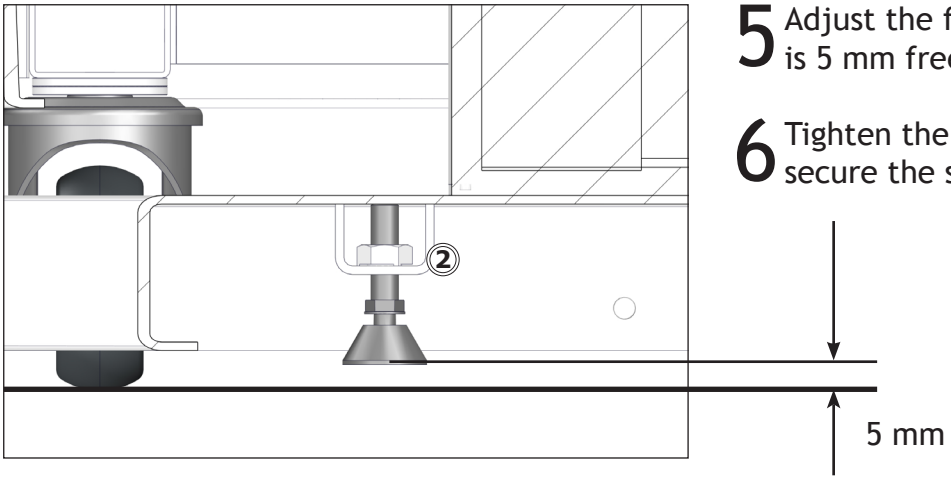
⚠ CAUTION

Avoid being trapped beneath the pool when operating the lifting/lowering system. Ensure that there is free access around the pool.

3 Mark the pool's position with colored tape ③ on the floor, so thath the pool always can be placed at the same spot.



4 Remove the magnetic cover panels ① to gain access to the support feets.

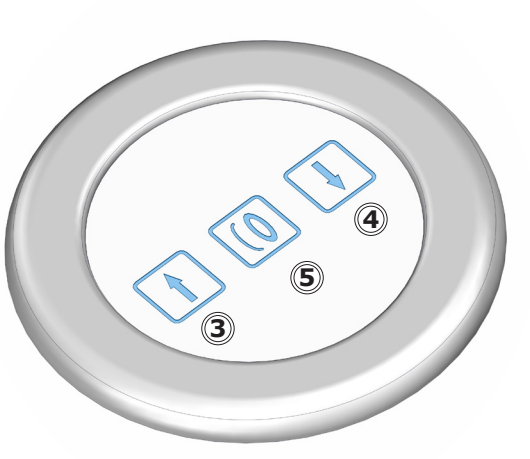


5 Adjust the feets under the pool until there is 5 mm free space under each foot.

6 Tighten the counter nut ② in order to secure the stability of the pool.

Calibrating of the lifting/lowering system

The pool's lifting/lowering system must be calibrated before use to ensure correct functionality.



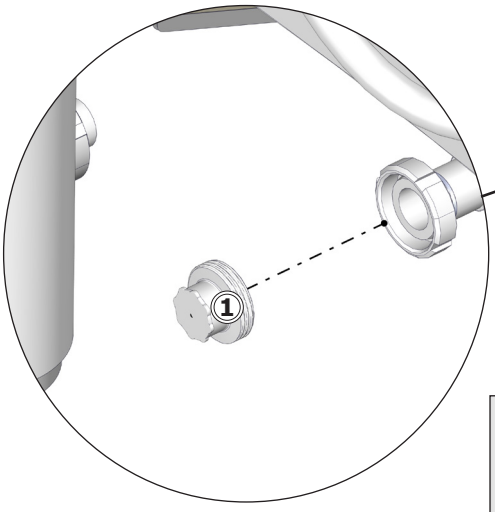
1 Press and hold the Up button ③ and the Down button ④ on the Easy Touch panel simultaneously. The control box will emit a series of high pitched beeps. Hold the two buttons down until the beeps stop (approx. 10 seconds). Release the buttons.

2 Press and hold the Wheel button ⑤ until the pool is all the way down. The system will emit slow beeps while going down, and change to fast beeps when fully down. Release the button.

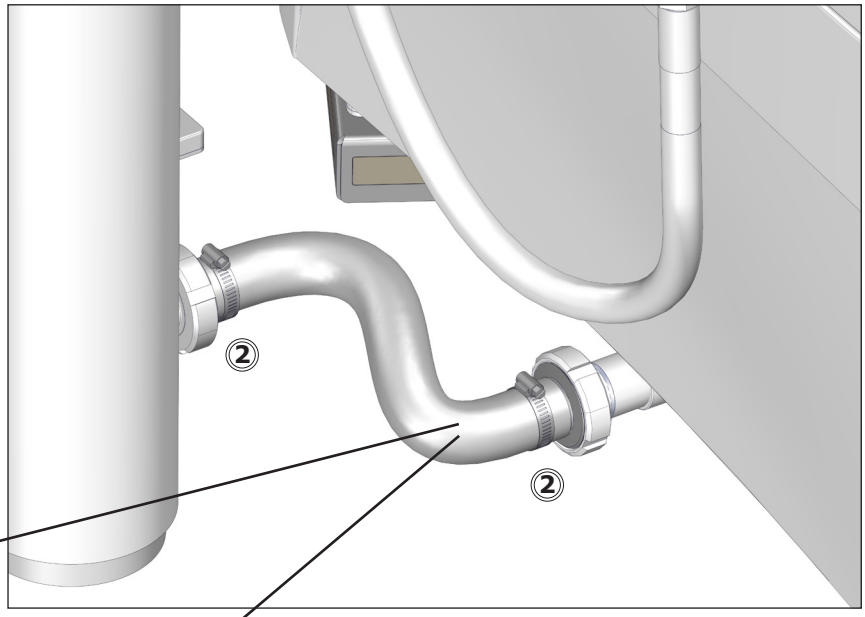
3 Press the Up button ③, and the pool will raise. The system is now ready to use.

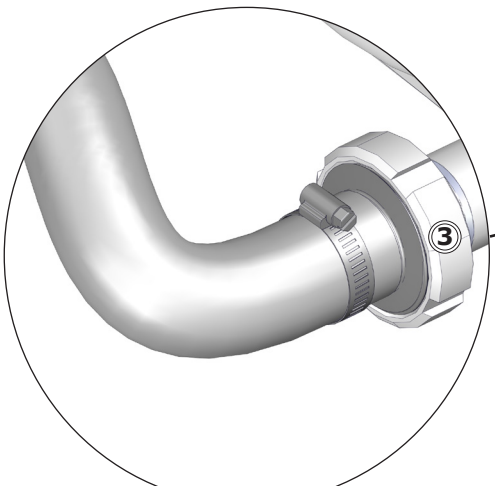
Outlet hose

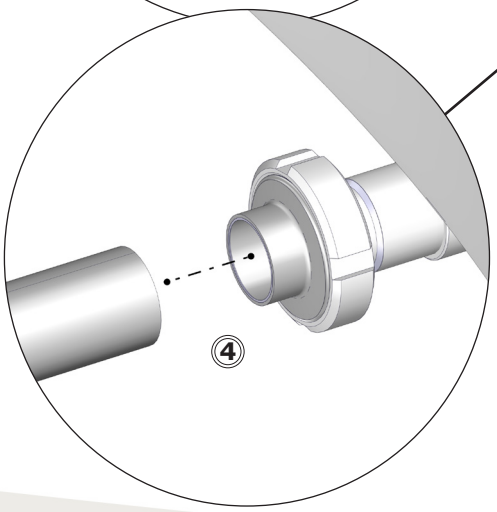
1 Remove the outlet plug and mount the outlet hose ① before filling water into the pool.



2 Attach the outlet hose between the Birth Pool and the Water Supply Unit ②.







The outlet hoses comes in two different versions:
A disposable hose for single use, and a non-disposable hose that can be autoclaved.

The non-disposable hose can easily be removed again without the use of tools. Just unscrew the two outlet flanges ③.

The disposable hose uses a push-fit connection on the hose flanges ④.

Filling with water

Attach the quick filler ① to the rim of the pool.

Open the water filler tap ②, and adjust the water temperature using the mixing tap ③.

Overflow sensor

The Birth Pool is equipped with sensors that prevent overflow.

The sensors maintains the water's level and ensure constant circulation of fresh warm water.

The overflow sensors will open the outlet valve automatically, when the water level reaches the pre-chosen maximum.

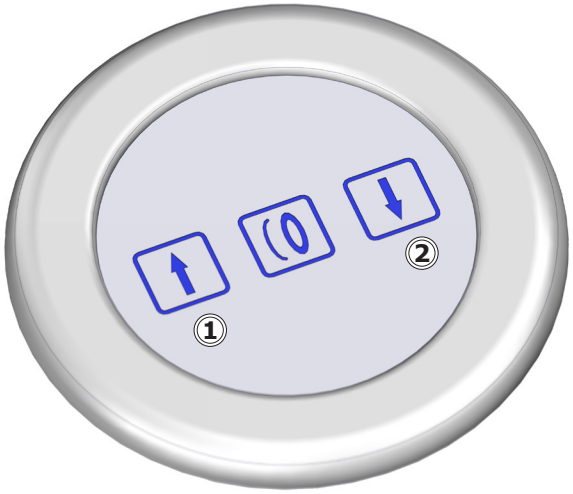
When the water level drops to the pre-chosen minimum (approx. 4 centimeters below the maximum), the outlet valve will automatically close again.

If the outlet valve opens before the water level has reached its maximum, please see section "**About the overflow sensor**".

The outlet valve can be controlled manually by pressing the outlet button ④ on the supply unit. Light in the outlet button indicates that the outlet valve is closed

The lifting/lowering system

The Birth Pool can be adjusted 290 / 335 mm (MILIEU 2014 / COMFORT 2014) upwards and downwards to ensure the best working position for the midwife.



Press and hold the Up-button ① to raise the pool, and press and hold the Down-button ② to lower the pool. Motion stops when the button is released.

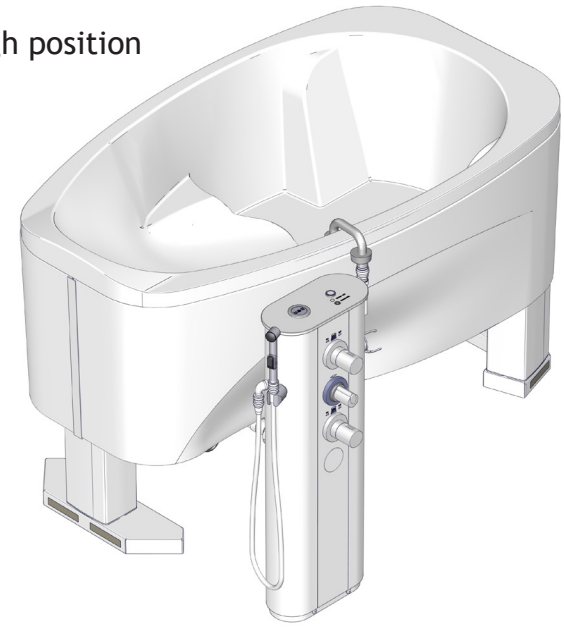
If the pool is resting on its wheels they will lift automatically when you raise the pool ensuring that the pool will stand firmly.

⚠CAUTION

Avoid being trapped beneath the pool when operating the lifting/lowering system.

Low position

High position



Cleaning and disinfection

⚠CAUTION

Always read the material safety data sheet (MSDS) and supplied instructions for the cleaning or disinfecting agent and comply with instructions for safe use, dilution, rinsing, drying, handling and storage of the agent.

After use, the pool must be drained immediately and rinsed with clean water. Use the hand shower head ① on the Supply Unit to carefully clean and rinse the pool. Regulate the water with the hand shower tap ②.

The pool must be cleaned with a neutral cleaning agent using a soft disposable cotton cloth. The water used for cleaning must not be warmer than 55-60° C.
After cleaning carefully rinse the pool again with clean water.

Never use scouring-cleaner or heavy alkaline cleaners and do not use razor blades or other sharp objects for cleaning.

To keep the Birth Pool's surface nice and shiny we recommend a regular polish with wax or SPA-polish, designed for acrylic surfaces.

IMPORTANT

The Easy Touch panel must not be cleaned with alcoholic agents.

Disinfection

The pool must be cleaned prior to disinfection.

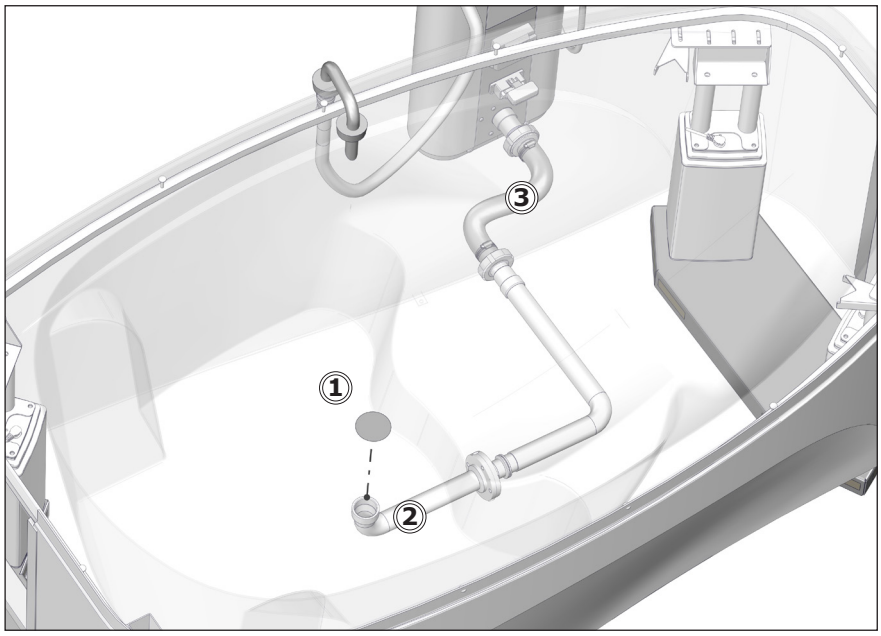
An alcoholic disinfection agent (min. 80% vol.) should be used. The alcoholic disinfection agent must be thoroughly applied with a disposable cloth. Never use stronger solutions (e.g. caustic soda). You can also use Actichlor plus as a cleaning agent.

1 Remove the pool's drain plug ① and clean it. The drain plug can be autoclaved.

2 Clean the drain ② using a cleaning brush. Put the drain plug back in place in the pool.

3 Close the outlet valve.

4 Fill water in the bottom of the pool (approx. 10 cm). Add a neutral cleaning agent.



5 Use the cleaning agent to clean the sides of the pool using a soft cotton cloth.

6 Open the outlet valve to let the water run out. Rinse the pool thoroughly once again.

7 Disinfect the pool with Actichlor or an alcoholic disinfection agent (min. 80% vol.). Apply the liquid agent to pool's surfaces and let them dry.

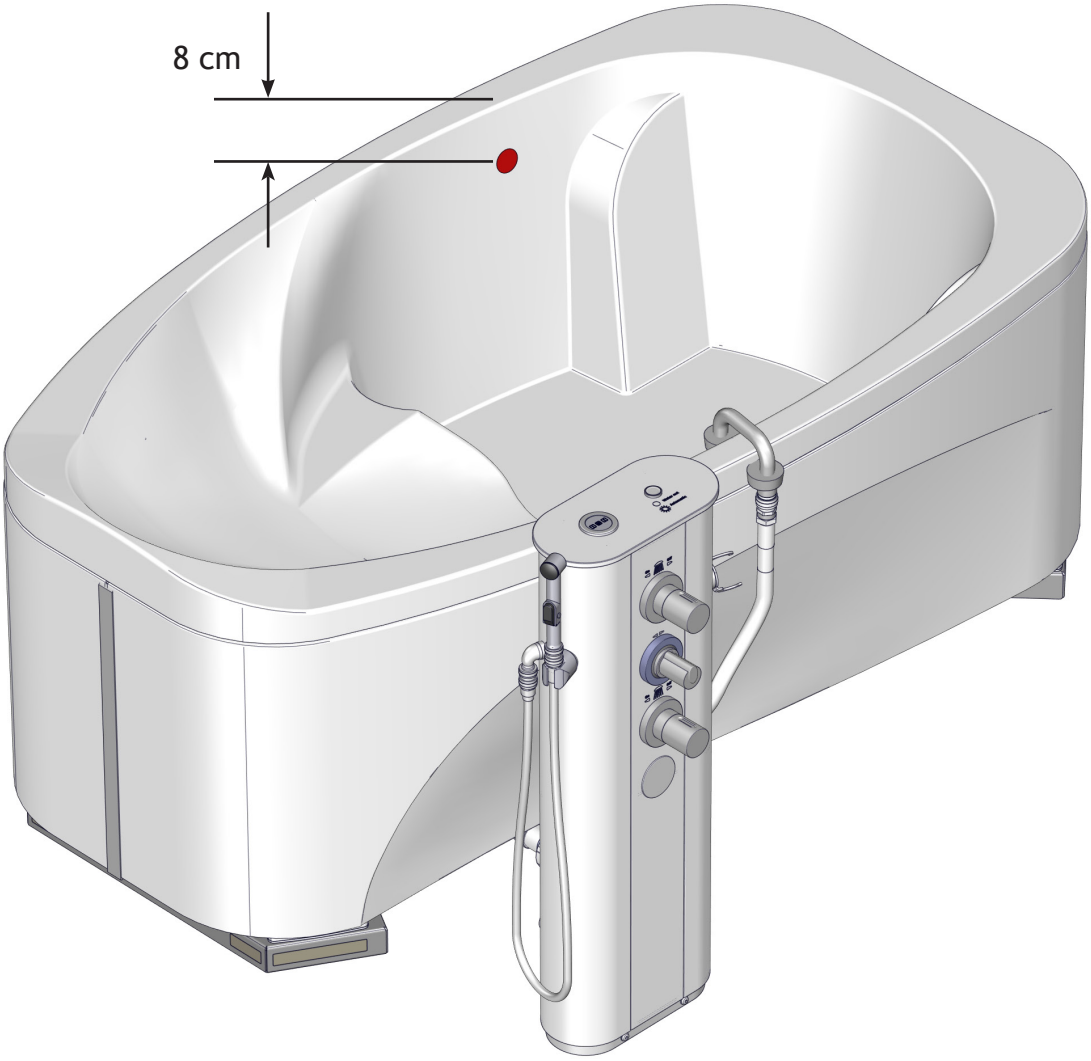
If you use Actichlor:
One Actichlor tablet is dissolved in 1 liter of warm water. The dissolution time is 10-15 min. You can either use a bucket or 1 liter disposable bottles.

8 Remove the outlet hose ③ and mount the outlet plug on the outlet flange. If you use a non-disposable hose it can be autoclaved.

9 Pour the Actichlor solution into the drain ② so that it fills the pool's drain tubes. Let the solution remain in the tubes until the pool is prepared for the next user.

About the overflow sensor

The birth pool's overflow sensor is placed behind the left side panel, 8 cm from the top rim of the pool.



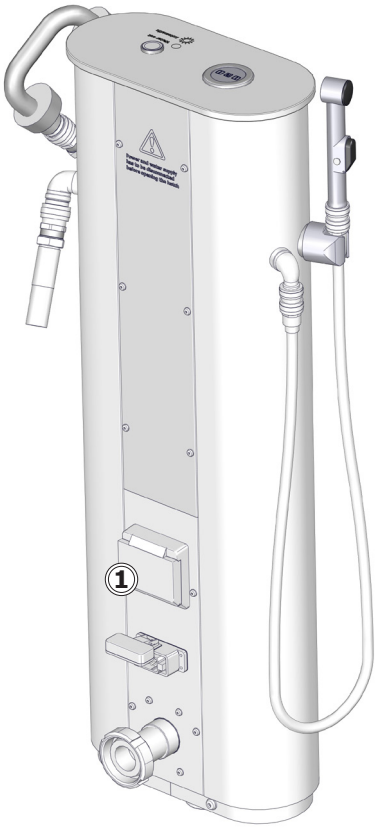
The overflow sensor has a 5 seconds delay so that it doesn't react on random movement like waves and persons that are passing by or touching the pool.

However if you sit leaning against the side where the sensor sits or put your hand or foot exactly in front of the sensor, the outlet valve may open unintentionally.

If this should happen, simply sit in a different way or remove your hand or foot from the sensor area.

In case of power failure

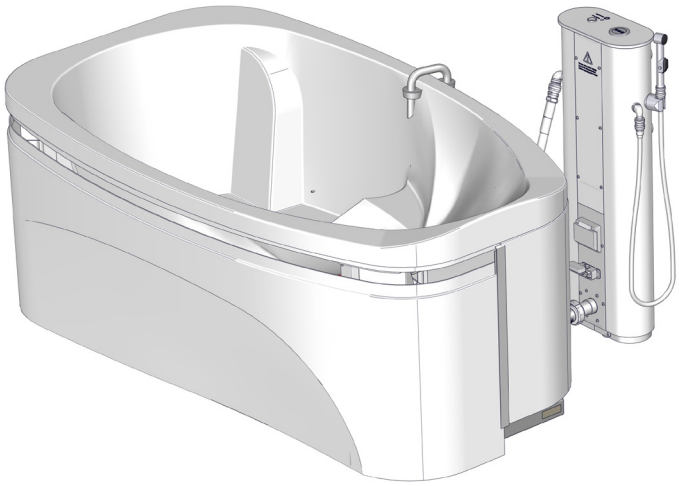
If the power fails while the pool is filled with water, it must be drained manually.



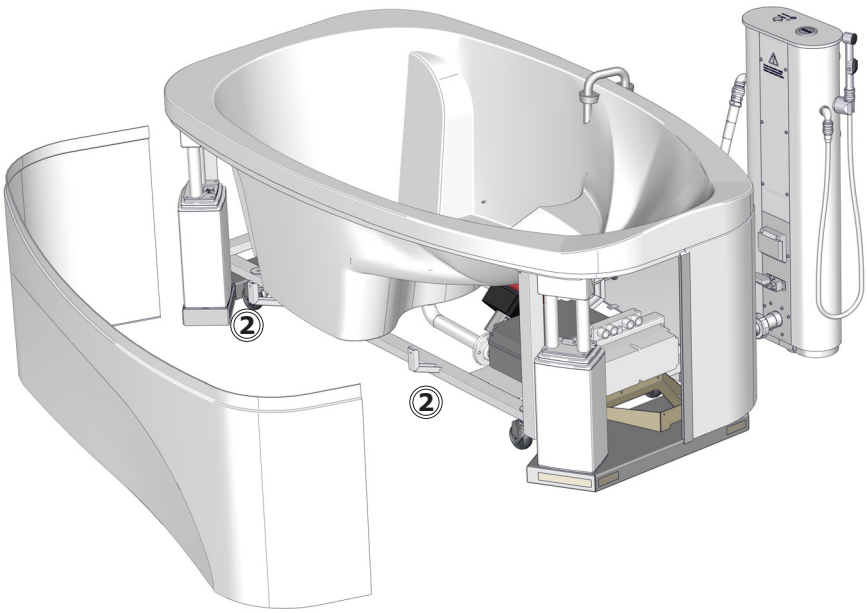
WARNING

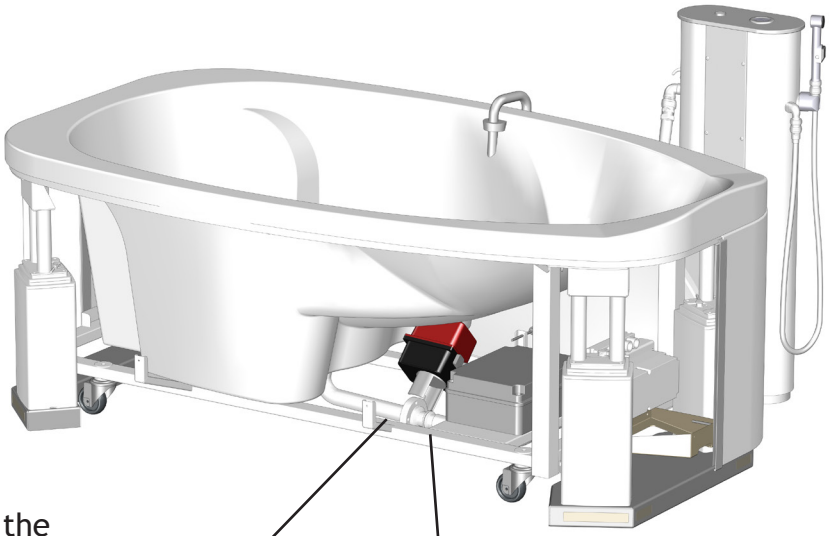
Always disconnect the power before removing the pool's side panels.

1 Unplug the power connector ① from the Supply Unit before touching the outlet valve under the pool.



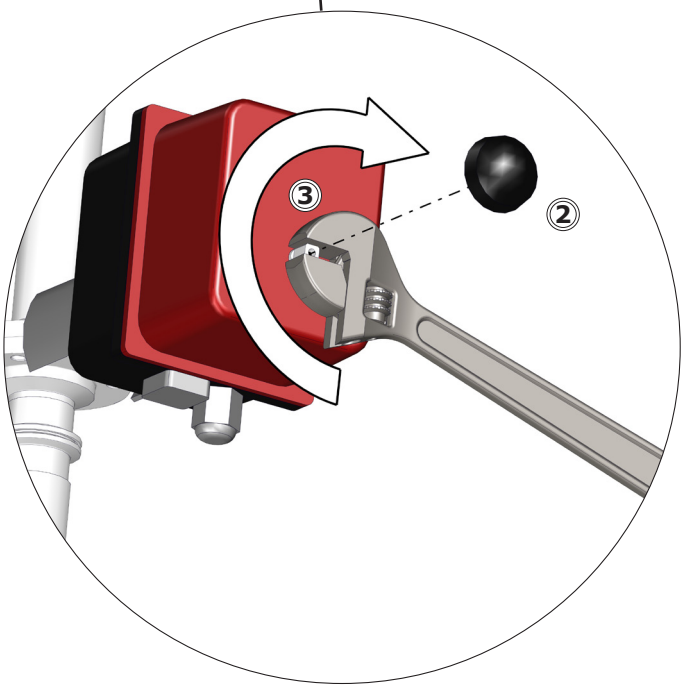
2 Remove one of the side panels on the pool, by pulling carefully down at the end of the pool. The panel is attached to the pool frame with small springs. Loosen the springs ② carefully.





3 Set the valve on manual (MAN) by turning the button ① on the valve. Hold the button in this position.

4 Remove the protection lid ② and turn the shaft ③ at the top of the valve. Hold on to the MAN button.



Technical data

Dimensions		
	Model MILIEU 2014	**Model COMFORT 2014**
Outside length	1,970 mm	1,700 mm
Outside width	1,130 mm	995 mm
Inside length	1,820 mm	1,550 mm
Inside width	1,010 mm	850 mm
Inside depth	570 mm	510 mm
Water depth	520 mm	445 mm
Weight		
Weight, empty	146 kg	132 kg
Weight, full	650 kg	410 kg
Capacity		
	Ca. 520 litres	Ca. 310 litres
Discharge time	3-4 min.	2½-3 min.
Height adjustment		
Lowest position	760 mm	730 mm
Highest position	1,050 mm	1,065 mm
Materials		
Pool	Acrylic, Fibre glass,Stainless steel	
Supply Unit	Stainless steel, Powder coated polyester	
Outlet flanges	Stainless steel	

Supply Unit	
Height	101 cm
Width	36 cm
Material	Stainless steel
Bottom outlet connecting piece	43 mm
Bottom outlet to water trap	Ø50 mm

Power consumption	~ 480 W/hour (2,1A x 240V)

Disposable hose	
Diameter	38 mm (inside)
Length	1 or 1.5 m
Material	LDPE low density
Melting temperature	110° C
Non-disposable hose	
Diameter	38 mm (inside)
Length	1 m
Material	Vulcano PU-H 09 Etere (Polyurathan) Microorganism and hydrolysis-resistant
Working pressure	10 BAR/+90° C
Cleaning	-40° C to +90° C – can also resist 125° C over short time (max 25 minutes)
Approvals	FDA approved – FDA-21 CFR 177.2600 EU approved – 10/2011/EC

Certifications

FJORDBLINK® Medical is certified according to DS/EN ISO 13485:2012 Medical Devices (AC 2009 Bureau Veritas), and the product has been certified according to:

Directives	EU Directive 2006/42/EC (Machinery), Annex I EMC Directive: 2004/108/EC Low Voltage Directive 2006/95/EC
Standards	EN 61000-4-2:1995+A1+A2, EN 61000-4-3:2006, EN 61000-4-4:2005 EN 61000-4-5:1995+A1, EN 61000-4-6:1996+A1, EN 61000-4-8:1993+A1 EN 61000-4-11:2004, EN 55011:1998+A1+A2 Class B, EN 55022:1998+A2 Class B EN 61000-3-2:2000 and EN 61000-3-3:1995+A1 EN 60601-1:1990+A1:1993+A2:1995+A13:1996 (Medical electrical equipment) Standard EN 60601-1-2, second edition: 2002 (Medical electrical equipment, Electromagnetic compatibility) EMC parts of EN 1970:2000 (Adjustable beds for disabled persons) and EN 60601-2-38:1997+A1:2000 (Particular requirements for the safety of electrically operated hospital beds) EU Directive 2004/108/EC (Electromagnetic Compatibility) EU Directive 93/42/EEC (Medical Devices)
Approvals	CE- marked Class 1 Medical Devices (EU Directive 93/42/EEC)
Protection class	IP 66

Disposal and recycling

The unit contains reusable materials. There are no known hazards or risks associated with disposal of the product. All components can be discarded after having been cleaned and disinfected.

When disposing of the product, we recommend that it be disassembled and broken down into different waste groups for recycling or combustion.

The following table provides information on the recycling and handling of the product.

Recyclable components	Material
Steel	Steel can be recycled by being melted down and included as a secondary material in the production of new steel.
Acrylic	Acrylic as a plastic is recyclable. It is considered a Group 7 recyclable. Use plastic sorting and recycling systems where they are locally available, otherwise incinerating plastic has the added benefit of generating energy which can be used for, for example, combined heat and power production.
Fibreglass	Fibreglass can be recycled and used in cement production. Cement is dependent on large quantities of sand. And sand is also the main constituent of glass, and thus also of fibreglass. Fibreglass additionally contains polyester which can be used as an energy source in cement production, thereby replacing the use of fossil fuels.
Electronics	The electronic components should be collected separately and returned to the designated recycling service.

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FJORDBLINK® Birth Pools
Designed by midwives
For midwifes